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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BIBBEE, CHAYCE R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,116	Applicant(s) SIMONSSON ET AL.	
	Examiner CHAYCE BIBBEE	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-38 and 40-52 is/are rejected.
- 7) ☒ Claim(s) 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/16/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 06/16/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
3. Claims 27-52 are presented for examination.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 27 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 27 and 40 recites the limitation "including both radio links and wired links between the terminal and a destination node. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 27, 28, 29, 31, 32, 38, 40, 41, 42, 43, 44, 46, 49, 50, 51, and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (20030043773).

Consider claims 27, 40, 50 , and 52. Chang teaches A method of selecting an access network from among one or more radio access networks, belonging to one or several different operators, where each said access network is capable of providing service to a mobile communication station, **(See at least the abstract where Chang discloses a mobile terminal performing dynamic link selection of multiple wireless networks).**

the method comprising:

measuring, for at least two access networks, an end-to-end quality through the whole communication path, each said communication path including both radio links and wired links between the terminal and a destination node, **(See at least paragraph [0034]).**

and selecting at least one access based on said measured end-to-end quality. **(See at least paragraph [0036]).**

Consider claims 28 and 41. Chang teaches all of the recited limitations of claims 27 and 40. Chang further teaches The method according to claim 27, wherein said measuring step is performed at the terminal. **(See at least paragraph [0034]).**

Consider claims 29 and 42. Chang teaches all of the recited limitations of claims 27 and 40. Chang further teaches The method according to claim 27, wherein said measuring step is performed at an intermediate node. **(See at least paragraph [0034]).**

Consider claims 31 and 46. Chang teaches all of the recited limitations of claims 27 and 40. Chang further teaches The method according to claim 27, further comprising measuring said end-to-end quality as a function of at least a delay for each access. **(See at least paragraph [0037]).**

Consider claim 32. Chang teaches all of the recited limitations of claims 27 and 40. Chang further teaches The method according to claim 27, further comprising measuring said end-to-end quality as a function of at least bandwidth for each access. **(See at least paragraph [0037]).**

Consider claims 38 and 49. Chang teaches all of the recited limitations of claims 27 and 40. Chang further teaches The method according to claim 27, further comprising: selecting more than one access, **(See at least paragraphs [0015] and [0016]).**

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and transmitting fractions of the data to be transmitted on each selected access, based on the measured end-to-end quality for each access. **(See at least paragraphs [0015] and [0016]).**

Consider claim 43. Chang teaches all of the recited limitations of claim 42. Chang further teaches The system according to claim 42, wherein said measuring means are further adapted to transmit the measurements results to the terminal. **(See at least paragraph [0034]).**

Consider claim 44. Chang teaches all of the recited limitations of claim 42. Chang further teaches The system according to claim 42, characterized in that said selecting means are located in one of the intermediate node, the terminal or another node. **(See at least paragraph [0034]).**

Consider claim 51. Chang teaches all of the recited limitations of claim 50. Chang further teaches The node according to claim 50, wherein said selecting means are further adapted to report said selected at least one access to the terminal. **(See at least paragraph [0034]).**

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 30, 33, 34, 35, 36, 37, 45, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (20030043773) in view of Fukui (20030076852).

Consider claims 30 and 45. Chang teaches all of the recited limitations of claims 27 and 40. Chang does not specifically disclose wherein said measuring step comprising transmitting at least one acknowledgeable measuring packet through each access between the terminal and the destination node. However Fukui in at least paragraph [0055] does disclose sending a request frame, e.g. a UNIX ping packet to a destination node in order to measure the transmission characteristics. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the

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method and system of Chang with the method and system of Fukui so as to efficiently determine the end-to-end signal quality of the access route.

Consider claim 33. Chang in view of Fukui teaches all of the recited limitations of claim 30. Fukui further teaches The method according to claim 30, wherein said measuring step comprising transmitting multiple acknowledgeable measuring packets through each access between the terminal and the destination node. **(See at least paragraph [0054]).**

Consider claim 34. Chang in view of Fukui teaches all of the recited limitations of claim 30. Fukui further teaches The method according to claim 30, further comprising transmitting acknowledgeable measuring packets with different sizes. **(See at least paragraph [0054]).**

Consider claim 35. Chang in view of Fukui teaches all of the recited limitations of claim 33. Fukui further teaches The method according to claim 33, further comprising measuring said end-to-end quality as a function of a packet error rate for each access. **(See at least paragraph [0054]).**

Consider claim 36. Chang in view of Fukui teaches all of the recited limitations of claim 30. Fukui further teaches The method according to claim 30, wherein said

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acknowledgeable measuring packet is a ping packet. **(See at least paragraph [0055]).**

Consider claim 37. Chang in view of Fukui teaches all of the recited limitations of claim 30. Fukui further teaches The method according to claim 30, wherein said acknowledgeable measuring packet is a payload packet. **(See at least paragraph [0055]).**

Consider claim 47. Chang teaches all of the recited limitations of claim 40. Chang does not specifically disclose The system according to claim 40, wherein said measuring means are configured to transmit multiple acknowledgeable measuring packets through each access between the terminal and the destination node. However Fukui in at least paragraphs [0054] and [0055] does disclose sending a request frame, e.g. a UNIX ping packet to a destination node in order to measure the transmission characteristics.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and system of Chang with the method and system of Fukui so as to efficiently determine the end-to-end signal quality of the access route.

Consider claim 48. Chang in view of Fukui teaches all of the recited limitations of claim 30. Fukui further teaches The system according to claim 47, wherein said measuring means are configured to measure said end-to-end quality as a function of a packet error rate for each access. **(See at least paragraph [0054]).**

Allowable Subject Matter

12. Claim 39 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider claim 39. The prior art does not teach or render obvious The method according to claim 34, further comprising transmitting fractions of the data basically according to: $L_n = \frac{1}{N} \sum_{i=1}^N \frac{D_{i,n}}{L_{tot}}$ where $L_{sub.tot}$ is the total load, $L_{sub.n}$ is the load or utilization for access n , $D_{sub.n}$ is the normalized round trip time in s/kbit for access n , and N is the number of accesses selected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAYCE BIBBEE whose telephone number is (571)270-7222. The examiner can normally be reached on Monday-Friday 7:30 a.m.-5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

CHAYCE BIBBEE
Examiner
Art Unit 2617